Title

## COPY OF PAPERS ORIGINALLY FILED

| UTILITY            |
|--------------------|
| PATENT APPLICATION |
| TRANSMITTAL        |

Attorney Docket No. 282.020

DAVID J. BEEBE ET AL First Named Inventor

(Only for new nonprovisional applications under 37 CFR 1.53(b))

METHOD AND APPARATUS FOR MONITORING THE ENVIRONMENT WITHIN A MICROFLUIDIC DEVICE

EL922961279US Express Mail Label No.

|   | APPLICATION ELEMENT   | S                                   | ADDRESS TO: Assistant Commissioner for Patents Box Patent Application                             |                 |  |  |  |  |
|---|---|-------------------------------------|---|-----------------|--|--|--|--|
| See MPEP chapter 600 concerning utility patent application contents.  |   |                                     | Washington, I   | D.C. 20231      |  |  |  |  |
| ( X ) Fee Transmittal Form (e.g., PTO/SB/17)  (Submit an original, and a duplicate for fee processing)  |   |                                     | 8. ( ) Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)            |                 |  |  |  |  |
| 2. ( X ) A  | applicant claims small entity status<br>see 37 CFR 1.27   | a. ( ) Computer Readable Form (CRF) |   |                 |  |  |  |  |
| 3. (X) S  | Specification [Total Pagoreferred arrangement set forth below, MPEP   | ges <u>17</u> ]<br>1503.01)         | b. ( ) Specification Se   | ·               | ing on:<br>(2 copies); or                    |  |  |  |
| -   | Descriptive title of the invention<br>Cross Reference to Related Application  |                                     | ii. ( ) paper   |                 |  |  |  |  |
|   | Statement Regarding Fed sponsored R<br>Reference to sequence listing, a table,  | & D                                 | c. ( ) Statement verify   | ying identity   | of above copies                              |  |  |  |
|   | program listing appendix Background of the Invention  |                                     | ACCOMPANYING  | G APPLICA       | ATION PARTS                                  |  |  |  |
| -   | Brief Summary of the Invention  |                                     | 9. ( ) Assignment Paper   | rs (cover she   | et & document(s))                            |  |  |  |
| -   | Brief Description of the Drawings (if file Detailed Description Claims  | a)                                  | 10. ( ) 37 CFR 3.73(b) St<br>(when there is an ass  |                 | ( ) Power of<br>Attorney                     |  |  |  |
| •   | Abstract of the Disclosure  |                                     | 11. ( ) English Translation   | n Document      | (if applicable)                              |  |  |  |
|   | Drawing(s) (35 U.S.C. 113) [Total Sheets Declaration [Total Pa  | s <u>3</u> ]<br>ges <u>2</u> ]      | 12. ( ) Information Disclor<br>Statement (IDS)/P  | sure<br>TO-1449 | ( ) Copies of IDS<br>Citations               |  |  |  |
|   | X ) Newly executed (original or copy)   |                                     | 13. ( ) Preliminary Amend   | dment           |  |  |  |  |
| b. (  | ) Copy from a prior application (37 Ci<br>(for continuation/divisional with Box 16 ci   | FR 1.63 (d))<br>ompleted)           | 14. (X)Return Receipt Postcard (MPEP 503) (Should be specifically itemized)                       |                 |  |  |  |  |
| i. ( ) <u>DELETION OF INVENTOR(S)</u> Signed statement attached deleting  |   |                                     | 15. ( ) Certified Copy of Priority Document(s)  |                 |  |  |  |  |
|   | inventor(s) named in the prior applic   |                                     | (if foreign priority is claimed)  |                 |  |  |  |  |
| 6 / \Ann  | 37 CFR 1.63 (d)(2) and 1.33 (b). lication Data Sheet. See 37 CFR 1.76   |                                     | 16. ( ) Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i) – Applicant must attached form |                 |  |  |  |  |
|   | ROM or CD-R in duplicate, large table or (  | Computer Program                    | PTO/SB/35 or its  | equivalent      |  |  |  |  |
| (Appe   | endix)  |                                     | 17. ( ) Other:  |                 |  |  |  |  |
| 16. If a CO   | 16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an |                                     |   |                 |  |  |  |  |
| Application Data Sheet under 37 CFR 1.76: ( ) Continuation ( ) Divisional ( ) Continuation-in-part (CIP) of prior application No:/  |   |                                     |   |                 |  |  |  |  |
| Prior application information: Examiner Group / Art Unit: For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box |   |                                     |   |                 |  |  |  |  |
| For CONTIN  | UATION or DIVISIONAL APPS only: The er<br>dered a part of the disclosure of the accome<br>on can only be relied upon when a portion h       | nanving continuation or             | divisional application and is nered   | iy incorporate  | on is supplied under Box d by reference. The |  |  |  |
| incorporatio  | in can only be relied upon when a portion in  | 17. CORRESPONDI                     |   |                 |  |  |  |  |
| ⊠ Custom  | ner Number or Bar Code Label  | en Custo                            | or 🗵  | Correspond      | dence address below                          |  |  |  |
| Name  | Peter C. Stomma   | 2359                                |   |                 |  |  |  |  |
| Address BOYLE, FREDRICKSON, NEWHOLM, STEIN & GROTTE S.C.  |   |                                     |   |                 |  |  |  |  |
|   | 250 E. Wisconsin Avenue , Suite 1030  |                                     |   |                 |  |  |  |  |
| City  | Milwaukee   | State WI                            |   | Zip Code        | 53202  |  |  |  |
| Country   | USA   | Telephone (41                       | 4) 225-9755   | Fax             | (414) 225-9753                               |  |  |  |
| Name (  | Print/Type) Peter C. Stomma   | /?                                  | Registration No. (Attorney/A  | gent) 36,0      | 220  |  |  |  |
| Signatu   | 100   |                                     |   | Date Oct        | ober 19, 2001                                |  |  |  |

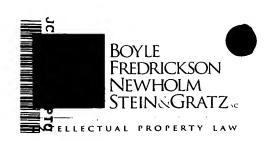
Burden Hour Statement. This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any consuments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS

TO THIS ADDRESS. SEND TO. Assistant Commissioner for Patents, Box Design, Washington, DC 20231. {00007975.DOC+}

Signature

Certificate of Express Mailing

I hereby certify that this correspondence is being deposited with the U.S. Post Office as Express Mail in an envelope addressed to, Assistant Commissioner for Patents, Box 12 washington, D.C. 20231 of 19 Co. The Express Label No. is \$\(\frac{1}{2}\), \$\(\frac{1}



SUITE 1030
250 EAST WISCONSIN AVENUE
MILWAUKEE. WI 53202
PHONE: 414.225.9755 FAX: 414.225.9753
E-MAIL: MAIL@BOYLEFRED.COM



PETER C. STOMMA DIRECT DIAL: 414-225-1673 PCS@BOYLEFRED.COM

October 19, 2001

Director of the U.S. of Patent and Trademark Office Box Patent Application Washington, D.C. 20231

Re: Utility Patent Application

Inventor(s): David J. Beebe and Jaisree Moorthy
Title: Method and Aparatus for Monitoring The
Environment Within A Microfluidic Device

USPTO Customer Account No.: 23598

Attorney Docket No.: 282.020

Dear Sir:

Enclosed is our check in the amount of \$433.00 in payment of the government filing fee for the enclosed United States patent application, which application includes 10 pages of specification, 27 claims on 6 sheets, 9 Drawings on 3 sheets, and an Abstract of the Disclosure. An unexecuted Declaration and Power of Attorney is also enclosed. The executed Declaration will be filed at a later date along with the late filing surcharge. A Utility Patent Application Transmittal and Fee Transmittal Form PTO/SB/17 (11/00) are also enclosed.

Applicant is a small entity within the meaning of 37 CFR §§ 1.9 and 1.27 and hereby claims small entity status.

Director of the U.S. and Trademark Office October 19, 2001 Page 2

The Director is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1170.

Respectfully submitted,

Peter C. Stomma

Registration No. 36,020

Planta Maria Maria

Certification Under 37 CFR 1.10

Express Mail Label No: EL9229612790US

Date of Deposit: October 19, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service in "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Director of the U.S. Patent and Trademark Office, Box Patent Application, Washington, D.C. 20231.

Christine Kierzek

PTO/SB/17 (11-00) Approx or use through 10/31/2002. OMB 0651-0032 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

erwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| Olider the Paperwork Reduction Act of 1999, no persons are to                                  |             |                          |             |                           |                | Complete if Known  |             |  |
|--|-------------|--------------------------|-------------|---------------------------|----------------|--|-------------|--|
| FEE TRANSMITTAL  | İ           | Applica                  | ation N     | umber                     | T              |  |             |  |
| • —  | ŀ           | Filing C                 |             |                           |                |  |             |  |
| for FY 2001  | ŀ           |                          |             |                           |                | D. CLI Deal and  |             |  |
| 101112001  | ŀ           |                          |             | nventor                   |                | David J. Beebe et al                                       |             |  |
| Patent fees are subject to annual revision.  |             | Examir                   | ner Nai     | me                        | _              |  |             |  |
|  |             | Group                    | Art Uni     | it                        |                |  |             |  |
| TOTAL AMOUNT OF PAYMENT (\$) 433   |             | Attomey Docket No.       |             |                           | 1              | 282.020  |             |  |
| METHOD OF PAYMENT  |             |                          |             | FEE                       | CAL            | CULATION (continued)                                       |             |  |
| The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to: | 3.          | ADDIT<br>Large<br>Entity | IONA        | L FEES<br>Small<br>Entity | S              |  |             |  |
| Deposit<br>Account 50-1170   | Fee<br>Code | Fee                      | Fee<br>Code | Fee<br>(\$)               | Fee D          | Description  | Fee Paid    |  |
| Number Deposit   |             |                          |             |                           |                | ·  |             |  |
| Account Name Boyle Fredrickson Newholm Stein & Gratz   | 105         | 130                      | 205         | 65                        | Surch          | arge – late filing fee or oath                             |             |  |
| S.C.  Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17                            | 127         | 50                       | 227         | 25                        | Surch<br>sheet | arge – late provisional filing fee or cover                |             |  |
| X Applicant claims small entity status.  | 139         | 130                      | 139         | 130                       | Non-E          | English specification                                      |             |  |
| See 37 CJR 1.27  2. X Payment Enclosed:  | 147         | 7 2,520                  | 147         | 2,520                     | For fili       | ng a request for ex parte reexamination                    |             |  |
| Y Charle Condit Cont Money Other   | 112         | 920*                     | 112         | 920*                      | Requi          | esting publication of SIR prior to                         |             |  |
| Order  | 113         | 1,840°                   | 113         | 1,840*                    |                | iner action<br>esting publication of SIR after             |             |  |
| FEE CALCULATION  |             | · A                      | 215         |                           |                | iner action<br>sion for reply within first month           |             |  |
| 1. BASIC FILING FEE  | 115<br>116  |                          | 216         | 55<br>195                 |                | sion for reply within second month                         |             |  |
| Large Entity Small Entity Fee Fee Fee Fee Description  | 117         |                          | 217         | 445                       |                | sion for reply within third month                          |             |  |
| Code (\$) Code (\$) Fee Paid  101 740 201 370 Utility filing fee 370                           | 118         |                          | 218         | 695                       |                | sion for reply within fourth month                         |             |  |
| 101 740 201 370 Utility filing fee 370 106 330 206 165 Design filing fee                       | 128         |                          | 228         | 945                       | Exten          | sion for reply within fifth month                          |             |  |
| 107 510 207 255 Plant filing fee   | 119         | 310                      | 219         | 155                       | Notice         | e of Appeal  |             |  |
| 108 740 208 370 Reissue filing fee   | 120         | 310                      | 220         | 155                       | Filing         | a brief in support of an appeal                            |             |  |
| 114 160 214 80 Provisional filing fee  | 121         | 270                      | 221         | 135                       |                | est for oral hearing                                       |             |  |
|  | 138         |                          | 138         | 1,510                     |                | on to institute a public use proceeding                    |             |  |
| SUBTOTAL (1) (\$) 370  | 140<br>141  |                          | 240<br>241  | 55<br>620                 |                | on to revive – unavoidable<br>on to revive – unintentional | <del></del> |  |
| 2. EXTRA CLAIM FEES Fee from   |             |                          | 242         | 620                       |                | issue fee (or reissue)                                     |             |  |
| Extra Claims Below Fee Paid  Total Claims 27 20"= 7 X 9 = 63                                   | 142         |                          |             |                           |                |  | <b></b>     |  |
| Independent 27 20 2 7 7  | 143<br>144  |                          | 243<br>244  | 220<br>300                | •              | n issue fee<br>issue fee                                   |             |  |
| Claims 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   |             |                          |             |                           |                | ons to the Commissioner                                    |             |  |
| Multiple Dependent   | 122<br>123  |                          | 122<br>123  | 130                       |                | ssing fee under 37 CFR 1.17(q)                             |             |  |
| Large Entity Small Entity  | 126         | 180                      | 126         |                           |                | ission of Information Disclosure Stmt                      |             |  |
| Fee Fee Fee Fee Description Code (\$) Code (\$)  |             |                          |             |                           |                | ding each patent assignment per                            |             |  |
| 103 18 203 9 Claims in excess of 20  | 581         | 40                       | 581         | 40                        | prope          | rty (times number of properties)                           |             |  |
| 102 80 202 40 Independent claims in excess of 3  | 146         | 710                      | 246         | 355                       | (37 CI         | a submission after final rejection FR § 1.129(a))          |             |  |
| 104 270 204 135 Multiple dependent claim, if not paid  | 149         | 710                      | 249         | 355                       |                | ach additional invention to be ined (37 CFR § 1.129(b))    |             |  |
| 109 80 209 40 **Reissue independent claims over<br>original patent                             | 179         | 710                      | 279         | 355                       | •              | est for Continued Examination (RCE)                        |             |  |
| 110 18 210 9 **Reissue claims in excess of 20 and over original patent                         | 169         | 900                      | 169         | 900                       | Requi          | est for expedited examination<br>esign application         |             |  |
| SUBTOTAL (2) (\$)63  | Other       | fee (spe                 | cify)       |                           |                |  |             |  |

| SUBMITTED BY      | Complete (if a  | Complete (if applicable)             |        |           |                |
|-------------------|-----------------|--------------------------------------|--------|-----------|----------------|
| Name (Print/Type) | Peter C. Stomma | Registration No.<br>(Attorney/Agent) | 36,020 | Telephone | (414) 225-9755 |
| Signature         | 9               |                                      |        | Date      | 10/19/01       |

\*Reduced by Basic Filing Fee Paid

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorizal

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant commissioner for Par

\*\* or number previously paid, if greater; For Reissues, see above

Certificate of Express Mailing

SUBTOTAL (3)

I hereby certify that this correspondence is being deposited with the U.S. Post Office as Express Mail in The Express Label No. is  $\frac{6}{2}$ ,  $\frac{6}{2}$ ,  $\frac{1}{2}$ 

Dan

{00011264.DOC /}